ABSTRACT

Although DC offset reduction schemes can be applied in the analog domain, the residual static DCO in baseband is still present, significantly influencing the performance of high-level modulation schemes employed by recent high-data-rate wireless communications

5   standards. In order to achieve satisfactory performance, DCO compensation algorithms are required in the digital domain. One such algorithm was developed which is based on joint estimation of the Channel Impulse Response (CIR) and the static DCO and ensures satisfactory performance of EDGE modem with direct conversion radio architectures.   A further modification of the joint estimation algorithm, the so-called "perturbed joint L", results in

10   further improvement in the performance of the EDGE equalizer in critical fading channels.